

Europäisches Patentamt European Patent Office Office européen des brevets



(11) **EP 1 067 535 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 09.01.2002 Bulletin 2002/02

(51) Int Cl.7: G11B 7/24, G11B 7/007

- (43) Date of publication A2: 10.01.2001 Bulletin 2001/02
- (21) Application number: 00305480.6
- (22) Date of filing: 29.06.2000
- (84) Designated Contracting States:

 AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

 MC NL PT SE

 Designated Extension States:

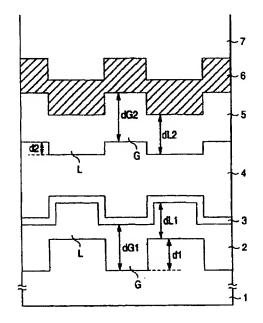
 AL LT LV MK RO SI
- (30) Priority: 02.07.1999 JP 18914999
- (71) Applicant: Pioneer Corporation Meguro-ku, Tokyo (JP)

- (72) Inventors:
 - Muramatsu, Eiji, Pioneer Corporation Tokorozawa-shi, Saitama (JP)
 - Kuroda, Kazuo, Pioneer Corporation Tokorozawa-shi, Saitama (JP)
- (74) Representative: Haley, Stephen
 Gill Jennings & Every, Broadgate House, 7 Eldon
 Street
 London EC2M 7LH (GB)

(54) Information recording medium

At the least, a first recording layer 2 and a trans-(57)lucent film layer 3 are laminated in order on a transparent substrate 1 to form a first information recording/reproduction unit; and at the least, a reflective film layer 6 and a second recording layer 5 are laminated in order on a transparent substrate 7 to form a second information recording/reproduction unit. Then, the first and the second information recording/reproduction units are glued together by a transparent bonding layer 4, with the translucent film layer 3 facing the second recording layer 5, so that a two-layer information recording medium is obtained. Further, grooves G and lands L are formed for the first and the second recording layers 2 and 5. The depths of the grooves are substantially equal for the first and the second recording layers 2 and 5, the heights of the lands L are substantially equal for the first and the second recording layers 2 and 5, and the depth of the grooves G are greater than the height of the lands

FIG. 2



EP 1 067 535 A3



EUROPEAN SEARCH REPORT

Application Number EP 00 30 5480

1	DOCUMENTS CONSID	ERED TO BE RELEVANT		
Category	Citation of document with i of relevant pass	ndication, where appropriate, ages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	PATENT ABSTRACTS OF vol. 1999, no. 08, 30 June 1999 (1999- & JP 11 066622 A (* 9 March 1999 (1999- * abstract; figure:	-06-30) TAIYO YUDEN CO LTD), -03-09)	1-6	G11B7/24 G11B7/007
A	9 June 1998 (1998-6 * column 2, line 35 figures 4,9 * * column 5, line 66	SHIUCHI KENICHI ET AL) 26-09) 5 - column 4, line 3; 6 - column 6, line 25 * 60 - column 14, line 62	1,2,5,6	
A	EP 0 762 392 A (MII 12 March 1997 (1997 * page 4, line 45 - figures 1A,1B *	TSUI TOATSU CHEMICALS) 7-03-12) - page 6, line 31;	1-6	
A	US 5 756 265 A (ABE 26 May 1998 (1998-6 * column 7, line 53 figures 5,6 *	E SHINYA ET AL) 05-26) 3 - column 8, line 39;	1-6	TECHNICAL FIELDS SEARCHED (Imt.Cl.7) G11B
A	PATENT ABSTRACTS 01 vol. 1997, no. 12, 25 December 1997 (1 & JP 09 212924 A (15 August 1997 (199 * abstract *	1997-12-25) FOSHIBA CORP).	1-6	
	The present search report has	been drawn up for all claims		
	Place of search	Date of completion of the search		Examiner
	THE HAGUE	16 November 2001	Ho1	ubov, C

EPO FORM 1503 03.82 (POACO1)

CATEGORY OF CITED DOCUMENTS

- X : particularly relevant if taken atone
 Y : particularly relevant if combined with another document of the same category
 A : technological background
 C : non-written disclosure
 P : intermediate document

- T: theory or principle underlying the invention
 E: earlier patient document, but published on, or
 after the filing date
 D: document clad in the application
 L: document clad for other reasons
- & : member of the same patent family, corresponding document

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 30 5480

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

16-11-2001

	Patent documen cited in search rep		Publication date		Patent family member(s)	Publication date
JP	11066622	Α	09-03-1999	NONE		
US	5764619	A	09-06-1998	CN EP WO JP KR SG SG US	1157048 A 0764323 A2 9631875 A2 10505188 T 248096 B1 74605 A1 74034 A1 6226239 B1 6027594 A	13-08-1997 26-03-1997 10-10-1996 19-05-1998 15-03-2000 22-08-2000 18-07-2000 01-05-2001 22-02-2000
EP	0762392	A	12-03-1997	JP EP US	9120586 A 9762392 A2 5696758 A	96-95-1997 12-93-1997 09-12-1997
US	5756265	A	26-05-1998	CN JP KR	1145516 A 9054989 A 225105 B1	19-03-1997 25-02-1997 15-10-1999
JP	69212924	A	15-08-1997	NONE		

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82